

# **REVISION TO THE NEW MEXICO STATE IMPLEMENTATION PLAN FOR REGIONAL HAZE**

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(Revisions dated December 20, 2010)  
(Additional revisions dated May 2, 2011)**

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~~Mexico's Phase I visibility protection. Accordingly, this Phase II visibility SIP for New Mexico does not include geographic enhancement. The authority and obligation needed by New Mexico to perform RAVI attributions and related BART determinations, and the geographic enhancement that may be necessary with such authority, may be provided to New Mexico by a SIP revision completed at a future date.]~~

## **1. Geographic Enhancements Program**

The requirements for geographic enhancement are discussed on page 35757 in the Preamble to the 1999 regional haze rule. Geographic enhancement is a voluntary approach for addressing reasonably attributable visibility impairment (RAVI) for stationary sources, under the provisions of 40 CFR 51.302(c). RAVI is different from regional haze in that it addresses "hot spots" or situations where visibility impairment in a Class I area is reasonably attributable to a single source or small group of sources in relatively close proximity to the Class I area. The geographic enhancement approach would allow states or tribes to use the efficiencies and reduced cost provided by the market trading program to accommodate situations where RAVI needs to be addressed. Additional information is contained in the WESTAR report, Recommendations for Making Attribution Determinations in the Context of Reasonably Attributable BART.

Procedure for addressing Reasonably Attributable Visibility Impairment under the Regional Haze Rule. If the Federal Land Manager certifies impairment, the State of New Mexico will fulfill its obligations to determine attribution and if necessary determine BART for the applicable source or group of sources in accordance with New Mexico's SIP for reasonably attributable visibility protection approved by EPA through a notice in the Federal Register on January 27, 2006. The New Mexico SIP for reasonably attributable visibility became effective on March 28, 2006.

## **2. Applicable WRAP Reports and Documents**

See WESTAR report Recommendations for Making Attribution Determinations in the Context of Reasonably Attributable BART (Appendix **XX** K). New Mexico commits to following the recommendations outlined in this report in making RAVI determinations.

Accordingly, the backstop trading program contains a 2,500 allocation to tribes in the GCVTC region. Case-by-case BART permits would not provide this practical benefit to tribes that was an integral part of the GCVTC recommendations.

#### 7. Other Class I Areas Also Show Improvement in Visibility

In addition to demonstrating successful SO<sub>2</sub> emission reductions, §309 states have also relied on visibility modeling conducted by the WRAP to demonstrate improvement at Class I areas. The complete modeling demonstration showing deciview values was included as part of the visibility improvement section in each of the state §309 SIPs, but the SO<sub>2</sub> portion of the demonstration has been included below as Table M-4 to underscore the improvements associated with 309 SO<sub>2</sub> reductions and further demonstrate why the 309 program is better than BART. 40 CFR 51.309(g)(2)(i) allows states to build upon the strategies implemented in a 309 program and take full credit for visibility improvement achieved through these strategies when addressing additional Class I areas. This table demonstrates achievements in visibility in these additional Class I areas (off the Colorado Plateau) in and surrounding the three states participating in the 309 program. For the most part, the table shows projected visibility improvement for 2018 with respect to SO<sub>2</sub> on the worst days and no degradation on the best days. [There is one Class I area in New Mexico off the Colorado Plateau that is not showing improvement on the worst days. The State of New Mexico has reviewed the emissions data related to impacts in the Gila Wilderness and has determined that the visibility degradation is largely due to increasing point source emissions from Mexico.]

**Table M-4. Visibility - Sulfate Extinction Only**

<b>Class I Area Monitor</b> <b>(Class I Areas Represented)</b>	<b>20% Worst Visibility Days</b> <b>(Monthly Average, Mm<sup>-1</sup>)</b>		<b>20% Best Visibility Days</b> <b>(Monthly Average, Mm<sup>-1</sup>)</b>	
	<b>2018<sup>1</sup></b> <b>Base Case</b> <b>(Base 18b)</b>	<b>2018<sup>2</sup></b> <b>Preliminary</b> <b>Reasonable</b> <b>Progress Case</b> <b>(PRP18a)</b>	<b>2018<sup>1</sup></b> <b>Base Case</b> <b>(Base 18b)</b>	<b>2018<sup>2</sup></b> <b>Preliminary</b> <b>Reasonable</b> <b>Progress Case</b> <b>(PRP18a)</b>
<u>Bridger, WY</u> (Bridger WA and Fitzpatrick WA)	<u>5.2</u>	<u>4.3</u>	<u>1.6</u>	<u>1.3</u>
<u>North Absaroka, WY</u> (North Absaroka WA and Washakie WA)	<u>4.8</u>	<u>4.5</u>	<u>1.1</u>	<u>1.1</u>
<u>Yellowstone, WY</u> (Yellowstone NP, Grand Teton NP and Teton WA)	<u>4.3</u>	<u>3.9</u>	<u>1.6</u>	<u>1.4</u>
<u>Badlands, SD</u>	<u>17.8</u>	<u>16.0</u>	<u>3.5</u>	<u>3.1</u>
<u>Wind Cave, SD</u>	<u>13.0</u>	<u>12.1</u>	<u>2.7</u>	<u>2.5</u>
<u>Great Sand Dunes NM, CO</u>	<u>5.3</u>	<u>4.9</u>	<u>2.0</u>	<u>1.8</u>
<u>Mount Zirkel, CO</u> (Mt. Zirkel WA and Rawah WA)	<u>4.6</u>	<u>4.1</u>	<u>1.4</u>	<u>1.3</u>
<u>Rocky Mountain, CO</u>	<u>6.8</u>	<u>6.2</u>	<u>1.3</u>	<u>1.1</u>
<u>Gates of the Mountains, MT</u>	<u>5.3</u>	<u>5.1</u>	<u>1.0</u>	<u>1.0</u>
<u>UL Bend, MT</u>	<u>9.7</u>	<u>9.6</u>	<u>1.8</u>	<u>1.7</u>
<u>Craters of the Moon, ID</u>	<u>5.8</u>	<u>5.5</u>	<u>1.5</u>	<u>1.5</u>
<u>Sawtooth, ID</u>	<u>3.0</u>	<u>2.8</u>	<u>1.2</u>	<u>1.1</u>
<u>Bandelier NM, NM</u>	<u>6.4</u>	<u>5.9</u>	<u>2.4</u>	<u>2.2</u>
<u>Bosque del Apache NWRW, NM</u>	<u>7.0</u>	<u>6.6</u>	<u>2.7</u>	<u>2.5</u>
<u>Gila W, NM</u>	<u>6.2</u>	<u>6.7</u> <u>6.0</u>	<u>1.8</u>	<u>1.8</u> <u>1.7</u>
<u>Salt Creek NWRW, NM</u>	<u>14.4</u>	<u>14.0</u>	<u>3.3</u>	<u>3.1</u>
<u>Wheeler Peak, NM</u> (Pecos W and Wheeler Peak W)	<u>4.7</u>	<u>4.4</u>	<u>1.1</u>	<u>1.0</u>
<u>White Mountain W, NM</u>	<u>8.9</u>	<u>8.7</u>	<u>1.8</u>	<u>1.7</u>
<u>Great Basin NP, NV</u>	<u>4.1</u>	<u>4.1</u>	<u>1.2</u>	<u>1.2</u>
<u>Jarbridge W, NV</u>	<u>3.8</u>	<u>3.4</u>	<u>1.3</u>	<u>1.2</u>
<u>Chiricahua, AZ</u> (Chiricahua NM, Chiricahua W, Galiuro W)	<u>7.4</u>	<u>7.4</u>	<u>2.2</u>	<u>2.1</u>
<u>Ike's Backbone, AZ</u> (Mazatzal W, Pine Mountain W)	<u>6.1</u>	<u>5.9</u>	<u>2.2</u>	<u>2.1</u>
<u>Queen Valley, AZ</u>	<u>7.5</u>	<u>7.5</u>	<u>3.0</u>	<u>3.0</u>
<u>Saguaro NM, AZ</u>	<u>7.1</u>	<u>6.8</u>	<u>2.6</u>	<u>2.5</u>
<u>Saguaro West, AZ</u>	<u>7.3</u>	<u>7.1</u>	<u>3.2</u>	<u>3.1</u>
<u>Sierra Ancha, AZ</u>	<u>6.0</u>	<u>5.8</u>	<u>2.2</u>	<u>2.1</u>
<u>Superstition, AZ</u>	<u>6.7</u>	<u>6.5</u>	<u>2.7</u>	<u>2.6</u>
<u>Guadalupe Mountains NP, TX</u> (Carlsbad Caverns NP, NM and Guadalupe Mountains NP, TX)	<u>13.7</u>	<u>13.6</u>	<u>3.3</u>	<u>3.2</u>

<sup>1</sup> Represents 2018 Base Case growth plus all established controls as of Dec. 2004. No BART or SO<sub>2</sub> Milestone assumptions were included.

<sup>2</sup> Represents 2018 Preliminary Reasonable Progress growth estimates and established SO<sub>2</sub> limits.